

REMARKS/ARGUMENTS

Original claims 1-17 remain in the application.

Claims 18-20 were withdrawn in response to the notice of Restriction dated April 4, 2004.

Claims 21-24 were added in a previous Office Action response.

Claims 1-14 and 21-24 have been rejected.

Claims 15-17 have been objected to for depending from a rejected claim.

Claims 1-14 and 21-24 have been rejected under 35 U.S.C. §103 (a), as being unpatentable over Turner (US 5,734,543) in view of Shuey et al. (US 4,500,837). The Examiner has cited Turner as the relevant art to be modified in view Shuey in his 35 U.S.C. §103 obviousness rejections of claims 1-14 and 21-24. According to M.P.E.P. 706.02(j), three basic criteria must be met for a *prima facie* obviousness rejection of claims under 35 U.S.C. §103(a). First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on the applicant's disclosure. Further, M.P.E.P. 2143.03 states "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)."

With respect to claims 1, 4, 7, 10, 21 and 22, the Examiner has suggested that "Turner discloses a circuit providing constant average current (col. 5, lines 50-53), said

circuit comprising: a full-wave bridge rectifier providing a rectified DC power output, an output switch operating in response to said output signal for selectively providing said rectified DC power at a constant average current to an electrical device connected electrically in series with said full-wave bridge rectifier and said switch."

Applicants agree that Turner does teach a full-wave rectifier 34 and an output switch 36, but Turner does not teach or suggest "an output switch operating in response to said output signal for selectively providing said rectified DC power at a constant average current to an electrical device connected electrically in series with said full-wave bridge rectifier and said output switch", as required in claim 1. The Examiner has indicated that Turner, in column 5 at lines 50-53, discloses "a circuit providing constant average current" to a load. Reading the complete sentence, starting at line 50 and ending at line 53, Turner discloses that he is providing an AC signal having a DC component, which he indicates in line 53 as having "a nonzero average value". A "nonzero average value" is not a "constant average current" as required in each independent claim of this application. The output switch 26 of the present invention provides a constant average current to the electrical device 34 during both normal operation and voltage sag conditions by applying constant volt-seconds to the device 34 in response to the output signal (page 3, lines 5-10, of the specification) Turner's statements in column 8, lines 28-36, clearly indicate that he is not "providing said rectified DC power at a constant average current to an electrical device", as required in the independent claims of this application. By permitting the current applied to the load to vary with respect to the source voltage, Turner can not provide "a constant average current" to the load. The Examiner has further suggested that Shuey discloses the use of a micro-controller for determining the DC content in an AC wave form and that it would have been obvious to one of ordinary skill in the art at the time of the invention to replace the control circuit of Turner with the microprocessor of Shuey. Since Shuey issued some 11 years prior to the filing of Turner and microprocessors were well known in the art at that time, one skilled in the art would have been aware of their potential applications as a control means. Turner's control circuit is composed of simple inexpensive electronic components and does not require a significant number of calculation to perform it's function. Shuey's control circuit requires a significant number of calculations to determine the DC

component in an AC waveform and would be difficult to do using only electronic components. Therefore, there is no suggestion in either Turner or Shuey for one skilled in the art to replace Turner's control circuit with a microprocessor. Further, applicants contend that the combination of Turner and Shuey, as suggested by the Examiner, does not meet any of the three requirements for a 35 U.S.C. §103(a) rejection, particularly the requirement that all of the elements in the claim and their limitations must be taught or suggested by the prior art. Therefore, claims 1, 4, 7, 10, 21 and 22, are clearly patentable over the art cited by the Examiner.

With respect to claims 2, 8, and 22, the Examiner has suggested that Shuey, in the Abstract, teaches said monitored component of the rectified DC voltage is the voltage. Shuey in column 1, lines 47-53, and column 4, lines 23-25, indicates that the monitored component is an instantaneous value of the AC waveform as shown at points A and B of Figure 3. Therefore, Shuey does not teach monitoring the rectified DC voltage. Further, since claims 2, 8 and 22, are dependent claims, they are allowable if the independent claims from which they depend are nonobvious under 35 U.S.C. §103.

With respect to claims 3 and 9, the Examiner has indicated that "SHUEY teaches wherein said monitored component is evaluated with respect to a setpoint measured on volt-seconds (abstract)." Applicants agree that Shuey does indicate in column 5, lines 35-37, that 600 millivolt-seconds is used as a reference value. However, since claims 3 and 9, are dependent claims, they are allowable if the independent claims from which they depend are nonobvious under 35 U.S.C. §103.

With respect to claims 5, 6, 11 and 12, the Examiner has indicated that "TURNER in view of SHUEY disclose the circuit of claim 1. SHUEY teaches wherein said monitoring, evaluating and providing said output signal are concurrent operations initiated by a trigger (column 4)." Applicants are not sure exactly where in column 4 this is taught. However, since claims 5, 6, 11 and 12 are dependent claim, they are allowable if the independent claims from which they depend are nonobvious under 35 U.S.C. §103.

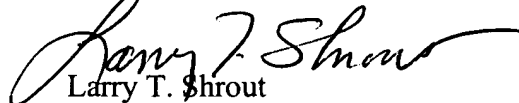
Regarding claim 13, the Examiner has indicated that TURNER in view of SHUEY disclose the voltage sag compensation circuit of claim 12 wherein said set point

is determined by said trigger period and a particular electric current level required to maintain said electrical device in a desired operating condition." Claim 12, from which claim 13 depends, requires that the "trigger is a regularly spaced event". The trigger (SCR 40) of Turner is activated in response to the set points associated with the magnitude of the source voltage, which is not a regularly spaced event when the source voltage magnitude varies. Therefore, the combination of Turner and Shuey does not disclose the required elements of claim 13. Further, since claim 13 is a dependent claim, it is allowable if the independent claim from which it depend are nonobvious under 35 U.S.C. §103.

Applicants respectfully submit that the combination of Turner and Shuey does not teach or suggest all of the limitations of independent claims 1, 7 and 21. Turner does not teach providing rectified DC power to a load at a constant average current. Furthermore, the combination of Turner and Shuey, as suggested by the Examiner, does not meet any of the three requirements for an obviousness rejection under 35 U.S.C. 103(a) as set forth in M.P.E.P 706.02(j). Therefore, independent claims 1, 7 and 21, as filed are clearly patentable over the cited art. Claims 2-6, 8-17 and 22-24, being dependent claims, are allowable according to M.P.E.P. 2143.03, "If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)." Therefore, dependent claims 2-6, 8-17 and 22-24, are also clearly patentable over the cited art.

In reply to the Office Action dated September 20, 2005, the rejections set forth by the Examiner have been carefully considered, and arguments have been presented herein to overcome the Examiner's rejections. Applicants believe all pending claims are in condition for allowance and respectfully request a favorable reconsideration and allowance of this Application.

Respectfully submitted,


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